



Volume 27

An ARCEC Monthly Publication

March 2018

Counterpoise Editor - Sue Robins AF6LJ

ARES

By Sue Robins AF6LJ

Our March presentation was on ARES, Fred Curtis, KI6GRO gave a detailed and in depth presentation on what it is that ARES does, and the logistical role ARES plays in emergency situations. The Amateur Radio Emergency Service® (ARES) consists of licensed amateurs who have voluntarily registered their qualifications and equipment, with their local ARES leadership, for communications duty in the public service when disaster strikes.



Club News

Shed Work Party;

The work party planned for march 17th to repair the utility trailer electrical system and do clean up was canceled due to rain. The work party will be rescheduled for March 24th.

Repeater Power Supply;

The club is looking for an Astron RS-50 power supply to replace the existing RS-50M power supply while the existing power supply is overhauled. The repeater power supply is in need of capacitor replacement and general maintenance. The power supply need not be new or in like new condition, it will be gone though before it is put into service.

40 Meter Field Day Antenna

The board is examining all our options for a 40 meter beam for use on Field day and other special events, stay tuned; as this is an evolving process.



Another Breed Of Cat

By Sue Robins AF6LJ

Continuing with the Micom 2-ET project, as mentioned last month the radio is not only without a control head, it is also set up to work with balanced line audio, for use with external audio processing gear such as a mixer / pre amp, noise gate, etc.... Instead of gutting the control box that came to me with the radio, I decided to modify the existing control box and make a home brew project out of the microphone pre amp I need to add in order to make the Micom and it's control box work with a hand mic.

This becomes a home brew project when you consider this pre amp can be used on any radio for both voice and digital modulation. This pre amp meets the requirements for driving any 600 ohm balanced line input device. You supply 50 millivolta of audio on the input, and you get 1.0 volts RMS to drive that 600 ohm balanced load.

Features;

- Line level output with 50 mv input
- Audio frequency response 10 HZ to >4 KHZ.
- Optional condenser microphone bias voltage.
- 12-18 VDC operation.
- Adjustable feedback, and audio level.

The pre amp will work with low impedance microphones, not so much with that dusty old D-104 you have in the closet. The goal is to build what I need to get my 2-ET on the air, in the process of accomplishing this goal I plan on using available free tools to design a PC board and use surface mount parts for the final version of this pre amp.

One of the available tools I am using in the design of the pre amp is Multi-Sim Blue by General Instrument. This tool can be found over on the Mouser web site. Multi-Sim Blue allows you to;

- Design circuits using a spice emulator.
- Test, and debug your circuit using virtual test equipment.
- Design a printed circuit board, using part outlines from the Mouser database.
- Build and manage your bill of materials (BOM).

There are a number of PCB houses that will for a very reasonable price provide you with finished prototype boards for a surprisingly reasonable price, IF you are willing to wait for them to get around to your project. While it is not a huge amount of time you will have to wait, if you need it NOW the cost goes up by an order or two of magnitude. At between \$5.00 and \$20.00 per board you can't beat the price., And you don't have to do all the messy wiring, just stuff the board, connect the juice and have fun.

You can find Multi-Sim Blue here; .

<https://www.mouser.com/multisimblue/>

Want to have a look at one of those PC board prototyping services look here; <https://www.pcbway.com/>

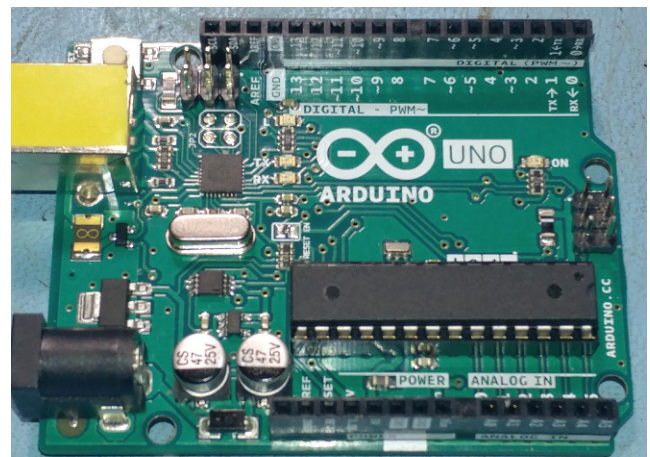
Stay Tuned.....

Next Month's Meeting

All Things Arduino

The program topic this month is Arduino, an open-source electronics platform based on easy-to-use hardware and software. It's intended for anyone making interactive projects. The program for this meeting will be given by Pat Bunsold, WA6MHZ .

All members and visitors are welcome.



ARCEC Repeater Frequencies

2 Meter Repeater	220 MHZ Repeater	440 MHZ Repeater
TX 146.475	TX 222.480	TX 440.900
RX 147.420	RX 224.080	RX 445.900
Offset .945	Offset 1.6	Offset 5.00
PL 107.2	PL 107.2	PL 107.2

Donut Net

Monday nights after dinner the Donut Net can be found on the ARCEC VHF repeater. Axel KI6RRN hosts a fun filled net with trivia questions and other activities. The net is a great place to spend that after dinner and before prime TV time. Come and join Axel for fun and fellowship with your fellow hams every Monday at 7:00 PM.

Support Our Local Businesses



	<p>New Battery Supply & Battery Recycling for SD</p> <p>New Marine Battery-Heavy Equipment Battery-Tuck/Auto</p> <p>619Battery.com</p> <p>Shop 619-448-5323 Mobile 619-315-5604 Call/Text</p> <p>1985 Friendship Dr B El Cajon 92020</p> <p>Jeff Schwen</p>
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Club Shirts & Jackets

We have green, pocketed 2013 Field Day club shirts available in sizes S (2), M (1), and L (8) for \$10 each. Our standard Club Shirts have no pocket and are in sizes M (10), L (4), 2XL (7), 3XL (4), 4XL (5) for \$10 each. Sizes are limited to stock on hand.

Lined Windbreaker Jackets are also available in sizes L (1) and XL (7) for \$24 each. These have side pockets with snap closure.

Membership Badges & Pins

All members of the Amateur Radio Club of El Cajon who might wish to obtain a membership badge can contact Dell Awards and place an order with them. They are our current preferred source for these badges, and have our logo and design on file and ready to create a custom badge for members. Current price is \$7.50 per badge and they have indicated that there is normally a 3 business day turnaround time. These are quality badges made by a long established company, so place yours on order soon. They can be reached at the below address and phone number, and be sure to mention you saw this blurb in the Counterpoise newsletter too.

Dell Awards
7949 Broadway
Lemon Grove, CA 91945
(619) 469-2100
Hours: Mon-Fri 9:30am-5:30pm
Sat 10am-1pm
Sun - Closed

Club Pins Now Available:

They have arrived! A limited number of club pins are now here and can be obtained from our Treasurer at most club functions. These are 1" diameter pins with a rubber clutch pin on rear. You can now show the world your support of the Amateur Radio Club of El Cajon, and for the small cost of \$3.00 each too. Get them while they are available.





The **AMATEUR RADIO CLUB OF EL CAJON**^{Inc.}
WA6BGS

Post Office Box Fifty, El Cajon California 92022

Founded 1960 ~ Incorporated 1976

Please fill out this form and then see options at bottom for submitting to the club

Date of application: ___ / ___ / ___

Amount Paid: \$ _____ Cash Check Check # _____

Membership Type: Individual (\$20/year) Family* (\$35/year)

Membership Status: New Renewal Returning Member

Call Sign First Name _____ Last Name _____

If a previous member, what was your WAMO number?

ARRL Member: Yes No

License Class: Technician General Extra Other

Email Address (required) _____

Phone Number (optional) _____

**Use another sheet of paper to add Family members and please include the following information:*

First Name, Last Name, Call Sign (if any), License Class, Wamo Number (if any), & Email Address.

Submitting this form:

To submit this form, you can mail it to:

**Amateur Radio Club of El Cajon
P.O. Box 50
El Cajon, CA 92022**

-OR-

Bring it to the next club meeting on the second Thursday of each month. You can find the date and location by getting online at www.wa6bgs.us which is the club website. Check it out for the most current information regarding the club.

Cash Payments - Get a receipt from the Club Treasurer. Please make all checks payable to AMATEUR RADIO CLUB of EL CAJON, Incorporated. Receipts for payments by check will be sent by email or regular mail by the Club Treasurer.

Members with an FCC Call Sign are full members with voting privileges. Members without an FCC Call Sign are Associate members without voting privileges.

YOUR DUES ARE TAX DEDUCTIBLE: Amateur Radio Club of El Cajon, Inc. Is a 501 C 7 Corporation. Donations are NOT tax deductible.

Email address and phone number are to allow club officers to contact members regarding club business and information of interest.